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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/501,948	03/02/2005	Kenji Mori	MUR-040-USA-PCT	8463
27955	7590	10/15/2008		
TOWNSEND & BANTA c/o PORTFOLIO IP PO BOX 52050 MINNEAPOLIS, MN 55402			EXAMINER SO, ELIZABETH K	
			ART UNIT	PAPER NUMBER
			4138	
			MAIL DATE	DELIVERY MODE
			10/15/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/501,948	Applicant(s) MORI ET AL.	
	Examiner ELIZABETH SO	Art Unit 4138	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 March 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 7/21/2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>01/13/2005; 11/23/2007; 11/23/2007; 08/05/2008</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Specification

1. The disclosure is objected to because of the following informalities: “allow” should be “allowing” (see p. 14, line 3).

Appropriate correction is required.

Claim Rejections - 35 USC § 102

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 2, 3, 4, and 8 are rejected under 35 U.S.C. 102(b) as being anticipated by Higo et al (US 6,259,946).

Referring to claim 1, Higo shows a single electrode on an insulating base (see col. 3, lines 53-54), the single electrode including both a component that can be a polarized electrode and a component that can be a non-polarized electrode (see col. 3, lines 55-58).

Referring to claim 2, Higo shows an electrode structure comprising an insulating base (see col. 3, line 54, where it is widely known that polymers act as insulators); and a polarized component layer laminated on the insulating base so as not to penetrate the insulating base, the polarized component layer comprising a conductive paste or metallic foil which is predominantly made of a component that can be a polarized electrode (see col. 3, lines 46-57). Higo shows that the conductive paste may also be non-polarized (see col. 3, lines 57-60). The addition of a non-polarized component layer provided on the polarized component layer is anticipated by Higo since he shows both kinds of component layers and also shows that his electrode structure consists of layers. It is obvious to one of ordinary skill in the art at the time the invention was made to have already experimented with Higo's layered electrode structure so that the non-

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polarized component is layered on top of the polarized component that is laminated on the insulating base.

Referring to claim 3, Higo shows the component that can be a polarized electrode is made of one or more materials selected from carbon and other polarizable materials (see col. 3, lines 56-57).). It is known to one of ordinary skill in the art that platinum, gold, aluminum, and titanium can be ideal polarizable electrodes and that including them as electrode component options allows for a greater chance in availability of materials.

Referring to claim 4, Higo shows the component that can be a non-polarized electrode is made of one or more materials selected from silver, silver chloride, copper, and copper chloride (see col. 3, lines 57-60).

Referring to claim 8, Higo shows an electrode structure comprising a conductive paste on an insulating base (see col. 3, lines 53-54), the conducting paste capable of being a mixture of a component that can be a polarized electrode and a component that can be a non-polarized electrode (see col. 3, lines 55-58).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 5, 6, and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Higo et al (US 6,259,946) as applied to claim 2 above.

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Higo teaches that the insulating base and other moldable materials can be formed into a thickness between 5 to 250 micrometers (see col. 3, lines 17-21) and the conductive paste can be formed into a thickness of 20 micrometers (see col. 5, lines 44-47). It is obvious to one of ordinary skill in the art at the time the invention was made that if moldable materials besides the insulating base could be formed into a film of thickness varying between 5 to 250 micrometers, and that the conductive paste consisting of polarizable and/or non-polarizable electrodes is moldable, then it follows that the polarized component layer could be formed into a thickness of 1 to 100 micrometers and the non-polarized component layer could be formed into a thickness of 5 to 500 micrometers. It also follows that if the thickness could be controlled, the area could also be controlled, so that the area of the non-polarized component layer is 1 to 10 square centimeters. The motivation to alter the electrode structure's dimensions and thickness is to provide it flexibility and prevent damage such as cracking.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ELIZABETH SO whose telephone number is 571-270-7405. The examiner can normally be reached on Monday - Friday, 9:30 A.M. - 3:00 P.M., EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Melba Bumgarner can be reached on 571-272-4709. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/E. S./
Examiner, Art Unit 4138

/Melba Bumgarner/
Supervisory Patent Examiner
Art Unit 4138